

RESOLUTION NO. 4360

RESOLUTION APPROVING REVENUE PROGRAM  
FOR CITY OF LODI SEWER UTILITY.

RESOLVED, that the City Council of the City of Lodi does hereby adopt the Revenue Program for the City of Lodi Sewer Utility, a copy of which is annexed hereto, marked Exhibit "A" and thereby made a part hereof as if set forth in full herein.

Dated: June 1, 1977

I hereby certify that Resolution No. 4360 was passed and adopted by the City Council of the City of Lodi in a regular meeting held June 1, 1977 by the following vote:

Ayes: Councilmen - Ehrhardt, Hughes,  
Katzakian, Pinkerton and  
Katnich

Noes: Councilmen - None

Absent: Councilmen - None

  
ALICE M. REIMCHE  
City Clerk

Form 6B  
DEBT SERVICE SCHEDULE

CITY OF LODI

DATE

May 1977

FIRST FULL YEAR OF OPERATION

1977/78

SERIES "D"  
BOND DEBT SCHEDULE

FISCAL YEAR	PRINCIPAL OUTSTANDING	INTEREST	PRINCIPAL MATURING	TOTAL DEBT SERVICE
1976	\$	\$25,930.	\$	\$25,930.
1977	960,000.	50,510.	45,000.	95,510.
1978	915,000.	47,660.	50,000.	97,660.
1979	865,000.	44,510.	55,000.	99,510.
1980	810,000.	41,060.	60,000.	101,060.
1981	750,000.	37,630.	65,000.	102,630.
1982	685,000.	34,350.	70,000.	104,350.
1983	615,000.	30,850.	75,000.	105,850.
1984	540,000.	27,010.	80,000.	107,010.
1985	460,000.	22,840.	85,000.	107,840.
1986	375,000.	18,420.	85,000.	103,420.
1987	290,000.	13,740.	90,000.	103,740.
1988	200,000.	8,650.	95,000.	103,650.
1989	105,000.	3,000.	105,000.	103,000.
				<u>\$960,000.</u>

NOTE: Figures are rounded up to nearest ten dollars.

FORM 6C  
DISTRIBUTION OF BOND COSTS

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Domestic Capital Cost 1967	\$2,582,500
Industrial Capital Cost 1967	<u>610,000</u>
Total Capital Cost 1967	\$3,192,500
 Distribution of Industrial Bond Costs	 \$ 610,000/\$3,192,500 = 19.1%
 Distribution of Domestic Bond Costs	 \$2,582,500/\$3,192,500 = 80.9%
 1977/78 Series A Bond - Interest	 \$ 83,810
- Principal	\$ 91,730
 Industrial Portion - Interest	 \$ 83,810 x 0.191 = \$16,008
- Principal	\$ 91,730 x 0.191 = \$17,520
 Domestic Portion - Interest	 \$ 83,810 x 0.809 = \$67,802
- Principal	\$ 91,730 x 0.809 = \$74,210

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## ANNUAL REVENUE NEEDED - INDUSTRIAL WASTEWATER SYSTEM

[illegible]

$$\text{RATIO } \frac{0.789}{C_{\text{to}}} = \frac{I_c}{C_{\text{to}}}$$

## FORM 8A

## DOMESTIC WASTEWATER SYSTEM - RATE DETERMINATION

1/3

NOTE: See Forms 7A and 7B for definition of terms used in these formulae.

## 1. FOR ALL INDUSTRIAL DISCHARGERS - SERVICE CHARGES

## a. Capital Costs

## 1) Capital Cost, Grant Funded Facilities

$$C_{gf} = V_{gf} V_u + B_{gf} B_u + S_{gf} S_u$$

$$C_{gf} = \$34.62 V_u + \$12.81 B_u + \$7.47 S_u$$

## 2) Capital Cost, Non-Grant Funded Facilities

$$C_{nf} = V_{nf} V_u + B_{nf} B_u + S_{gf} S_u$$

$$C_{nf} = \$20.41 V_u + \$6.58 B_u + \$4.14 S_u$$

## 3) Capital Cost, Collection System

$$C_{cs} = V_{cf} V_u$$

$$C_{cs} = \$17.67 V_u$$

## 4) Total Annual Capital Cost Collected

$$C_{tc} = C_{gf} + C_{nf} + C_{cs}$$

## b. Interest Cost

$$I_c = C_{tc} (0.481)$$

## c. Operation and Maintenance Costs

$$C_t = V_o V_u + B_o B_u + S_o S_u$$

$$C_t = \$102.13 V_u + \$67.52 B_u + \$60.99 S_u$$

d. Total Annual Charge =  $C_{tc} + I_c + C_t$

## FORM 8A

## DOMESTIC WASTEWATER SYSTEM - RATE DETERMINATION

2/3

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2. FOR COMMERCIAL AND DOMESTIC DISCHARGERS - SERVICE CHARGES

- a. Total Annual Unit Charge =
- $(R_{nc} + R_{nr}) /$

$$C_u = (R_{nr} + R_{nc}) / (U_r + U_c)$$

$$C_u = (485,404 + 114,803) / (11,927 + 2,842) = \$40.64/\text{year}$$

- b. Total Annual Charge

$$C_A = C_u U$$

Example - 3 bedroom home

$$C_A = \$40.64 (1.25) = \$50.80$$

- c. Monthly Charge

$$C_M = C_A / 12 \text{ or } \$50.80 / 12 = \$4.23$$

## 3. FOR ALL INDUSTRIAL DISCHARGERS - CONNECTION FEES

- a. Capital Costs

- 1) Capital Cost, Grant Funded Facilities

$$F_{gf} = V_{gf} (\text{estimated } V_u) + B_{gf} (\text{estimated } B_u) \\ + S_{gf} (\text{estimated } S_u)$$

- 2) Capital Cost, Non Grant Funded Facilities

$$F_{nf} = V_{nf} (\text{estimated } V_u) + B_{nf} (\text{estimated } B_u) \\ + S_{nf} (\text{estimated } S_u)$$

- 3) Capital Cost, Collection System

$$F_{cs} = V_{cf} (\text{estimated } V_u)$$

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FORM 8A

DOMESTIC WASTEWATER SYSTEM - RATE DETERMINATION

3/3

## 4) Total Capital

$$F_t = F_{gf} + F_{nf} + F_{cs}$$

## b. Interest Cost

$$F_i = F_t (0.481)$$

c. Total Connection Fee =  $F_t + F_i$ 

## 4. FOR COMMERCIAL AND DOMESTIC DISCHARGERS - CONNECTION FEE

Total Annual Revenue Needed - \$133,021

Design Year - 1990

Design Life - 12 years

Total Sewer Unit Capacity - 5,568 units

Average New Units Per Year -  $5,568/12 = 464$ Connection Fee Per Unit -  $\$133,021/464 = \$287$ 

Connection Fee - \$287 U

Example - 3 bedroom home -  $\$287 (1.25) = \$360$



FORM 8B  
DOMESTIC REVENUE PROGRAM SUMMARY 1977/78

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REVENUES

Commercial and Domestic Service Charges	
14,769 Sewage Service Units @ \$3.40/month	\$600,207
Industrial Service Charges	121,514
Connection Fees	
464 Sewage Service Units @ \$290	<u>133,021</u>
TOTAL REVENUES	\$854,742

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DISBURSEMENTS

Operation and Maintenance		
Accounts: 17-401.1	\$ 20,810	
17-402.2	15,290	
17-403.1	345,475	
17-404.1	58,695	
17-406.1	<u>21,610</u>	\$461,880
Interest (Account 17-030.1)		115,462
Treatment System WCRF		
Bond Principal (Account 17-030.1)		
Series A	\$ 74,210	
Series C	50,000	
Federal Repayment	5,297	
Capital Reserve Account (WCRA) <sup>a</sup>	<u>110,493</u>	240,000
Collection System Reserve Account (CSRA)		<u>37,400</u>
TOTAL DISBURSEMENTS		\$854,742

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<sup>a</sup>\$4,200 Invested in Federal Obligations

CITY OF LODI

DATE May 1977

FIRST FULL YEAR OF OPERATION 1977/78

FORM 8C

INDUSTRIAL WASTEWATER SYSTEM - RATE DETERMINATION

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SERVICE CHARGES

1. Capital Cost

$$C_j = V_{if} V_u + B_{if} B_u$$

$$C_j = \$60.33 V_u + \$0.95 B_u$$

2. Interest Cost

$$I_c = C_{tc} (0.789)$$

3. Operation and Maintenance Cost

$$C_t = V_i V_u + B_i B_u$$

$$C_t = \$176.24 V_u + \$2.75 B_u$$

4. Total Annual Charge =  $C_j + I_c + C_t$

CONNECTION FEES

To Be Negotiated on Individual Basis

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CITY OF LODI

DATE May 1977

FIRST FULL YEAR OF OPERATION 1977/78

FORM 8D  
INDUSTRIAL WASTEWATER SYSTEM REVENUE PROGRAM  
SUMMARY - 1977/78

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REVENUES

Industrial Service Charges	\$ 95,603
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DISBURSEMENTS

Operation and Maintenance

Accounts:	17-401.1	\$ 2,840	
	17-402.2	2,085	
	17-403.1	49,595	
	17-404.2	2,895	
	17-406.1	<u>1,880</u>	\$ 59,295

Interest (Account 17-030.1)	16,008
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Industrial Reserve Fund (ISRA)

Series A Bond Principal (Account 17-030.1)	\$ 17,520	
Reserve Account	<u>2,780</u>	<u>20,300</u>

TOTAL DISBURSEMENTS	\$ 95,603
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## Series 6 Forms - Bond Cost Allocations

The Series 6 forms are used to summarize annual bond interest and principal payments, and to distribute those payments between the domestic and industrial systems.

Forms 6A and 6B are the existing bond debt schedules for the City's Series A and Series C Bonds and cannot be modified. Form 6C illustrates the computation of bond cost distribution between the systems. Since the industrial system was constructed using only a portion of the Series A bonds, the Series C bonds are not included in this computation. Principal and interest payments change each year, so modification to this form must be made annually. As bond costs are a capital item, the distribution between the domestic and industrial systems is the same as the original capital cost distribution.

## Series 7 Forms - Annual Revenue Needs

The Series 7 forms are used to integrate all the data from the previous forms and to compute the revenue needs for individual or each class of user. In the case of industrial dischargers, actual service charges are calculated.

Forms 7A and 7B for the domestic and industrial systems, respectively, are similar and will be discussed together. These forms are to be modified annually.

Equations for calculating the various components of the service charges and connection fees are included in Forms 8A (Domestic System) and 8C (Industrial System). Except where self-explanatory, specific instructions by column for completing Forms 7A and 7B follow:

Column D Entries for each user (or class of User) are calculated using the quantities from Forms 1A, 1B, and 2A by the appropriate unit cost from Form 5.

Column E Same as Column D

Column G The interest cost is taken from Form 6C and distributed to the various users in the same ratio as other capital costs. The proper ratio is calculated at the bottom of Forms 7A and 7B and is applied to each item in Column F to derive the amounts entered in Column G.

Column I Total O&M Costs are taken from Forms 4B and 4C and are distributed using the quantities from Forms 1A, 1B, and 2A multiplied by the unit costs from Form 5.

Column J Same as Column D using collection system capital costs.

## Series 8 Forms

The purpose of the Series 8 forms is to illustrate how the service charges for the various users are calculated, and to summarize the source of revenues and how they will be disbursed. The basic formulas will not change unless basic changes are made in the revenue collection methods; the specific fees and charges, however, will change each year based on the results of the calculations outlined in this document.

Forms 8A and 8C summarize the formulas for calculating the service charges for users of the domestic and industrial systems, respectively. Terms used in the formulas are shown on the appropriate Series 7 form. The items used in the formulas for both the industrial and domestic systems are similar; therefore, caution must be used to insure that the domestic and industrial data are not inadvertently intermixed.

Forms 8B and 8D summarize the revenues and disbursement of funds for the domestic and industrial systems, respectively, and must be updated annually.

## Summary

Under the newly adopted revenue program, the forms in the Appendix must be completed each year. After completion, the forms must be forwarded to the State

Water Resources Control Board for review. Additional information to be submitted include written explanations of procedural changes in calculating revenues (if any), a balance statement for the WCRF, payments to the federal treasury, and any legislative enactments pertaining to the revenue program.

APPENDIX

CITY OF LODI

REVENUE PROGRAM COMPUTATION FORMS

FOR 1977/78



### Industrial Users of Domestic Wastewater System

FIRST FULL YEAR OF OPERATION 1977/78

FIRST FULL YEAR OF OPERATION 1977/78

[illegible]

CITY OF LOS ANGELES

DATE MAY 1977

FIRST FULL YEAR OF OPERATION 1977/78

[illegible]

## Nonindustrial Users of Domestic Wastewater System

FORM 2A

CITY OF LODI  
DATE MAY 1977  
FIRST FULL YEAR OF OPERATION 1977/78

FIRST FULL YEAR OF OPERATION 1977/78

[illegible]

CITY OF LODI - Date May 1977  
First Full Year of Operation 1977/78

FORM 2B  
RESIDENTIAL SEWER SERVICE UNIT SCHEDULE - 1977/78

Number of Bedrooms	Number of Dwellings <sup>a</sup>	Units/Dwelling (U)	Total Number of Units (U <sub>r</sub> )
1	1,862	0.75	1,397
2	5,334	1.00	5,334
3	3,777	1.25	4,721
4	238	1.50	357
5	47	1.75	82
6	18	2.00	36
			11,927 = U <sub>r</sub>

<sup>a</sup>City of Lodi Finance Department 1976

FORM 2C

COMMERCIAL CATEGORIES & SEWAGE SERVICE UNIT SCHEDULE - 1977/78

No.	Category Name	Unit of Measure <sup>a</sup>	Total No. Est'ments <sup>b</sup>	Total No. Units (Uc)
1	Meeting place, religious	Ea 200 seats	36	88
2	Meeting place, public	Ea 100 seats	13	80
3	Hotel, motel	Ea 5 beds	28	143
4	Veterinary clinic	Ea 10 kennels	4	16
5	Post office	Ea 25 emp.	2	3
6	Funeral parlor	Ea 2 emp.	2	10
7	Service station pumps	Ea 3 pumps	33	81
8	Car wash bays	Ea bay	5	12
9	School, 8th grade & below	Ea 25 students	14	216
10	High school	Ea 20 students	2	200
11	Eating place, seating only	Ea 10 seats	26	281
12	Eating place, seating & take-out	Ea 7 seats	14	200
13	Eating place, take-out only	Ea 5 emp.	14	25
14	Lunch truck business	Ea 5 emp.	1	3
15	Laundry, coin op., reg. mach.	Ea 2 machines	10	98
16	Laundry, coin op., big mach.	Ea machine	5	8
17	Comm. laundry & dry cleaning	Ea 2 emp.	9	18
18	Doctor's office	Ea 10 emp.	40	42
19	Dentist's office	Ea 5 emp.	29	32
20	Chiropractor's office	Ea 10 emp.	6	6
21	X-ray Laboratory	Ea 10 emp.	2	3
22	Office, store, warehouse	Ea 10 emp.	552	729
23	Bar	Ea 25 seats	24	61
24	Barber, beauty shop	Ea 4 chairs	61	75
25	Hospital, convalescent home	Ea 2 beds	9	339
26	Rest & retirement home	Ea 3 beds	8	73
TOTAL				2842

<sup>a</sup>One (1) sewage service unit per unit of measure

<sup>b</sup>City of Lodi Finance Department, April 1977

FORM 3A

CAPITAL COST ALLOCATIONS - GRANT-FUNDED DOMESTIC  
TREATMENT SYSTEM

CITY OF LODI

DATE May 197

FIRST FULL YEAR OF OPERATION 1977/78

A Grant Funded Treatment Plants and Pumping Plants	B Estimated Cost	C Useful Life	D Loading Parameters	E Capital Recovery Factor @ 6%	F Annual Capital Recovery Cost	G Flow Cost Allocated to Inf/Inf	TREATMENT PARAMETER ALLOCATION			
							H Flow Cost	I BOD Cost	J SS Cost	K Cost
Headworks										
Structures	307,000	40	Flow	0.06646	20,400		20,400			
Equipment	230,000	15	Flow, 75.	0.10296	23,680		17,760		5,920	
Primary Clarifiers			/SS. 25/							
Structures	220,000	40	Flow	0.06646	14,620		14,620			
Equipment	250,000	25	SS 55, BOD	0.07823	19,560			6,845	2,715	
Aeration			/ 35/							
Structures	270,000	40	Flow	0.06646	17,940		17,940			
Equipment	360,000	25	BOD	0.07823	28,160			28,160		
Secondary Clarifiers										
Structures	255,000	40	Flow	0.06646	16,950		16,950			
Equipment	290,000	25	BOD	0.07823	22,690			22,690		
Chlorination										
Structures	160,000	30	Flow	0.07265	11,620		11,620			
Equipment	210,000	12	Flow	0.11928	25,050			25,050		
Sludge Thickener										
Structures	130,000	40	BOD	0.06646	8,640			8,640		
Equipment	240,000	15	BOD	0.10296	24,710			24,710		
Sludge Digester										
Structure	240,000	30	SS 65, BOD 35	0.07265	17,440			6,105	11,335	
Equipment	265,000	12	SS 65, BOD 35	0.11928	31,610			11,065	20,545	
Sludge Dewatering										
Structure	180,000	40	SS 65, BOD 25	0.06646	11,960			2,990	8,970	
Equipment	290,000	15	SS 65, BOD 25	0.10296	29,860			7,465	22,395	
Effluent Pumping										
Structures	150,000	40	Flow	0.06646	9,970		9,970			
Equipment	330,000	20	Flow	0.08718	28,770		28,770			
Pond System										
Structures	110,000	40	Flow	0.06646	7,310		7,310			
Equipment	135,000	20	Flow	0.08718	11,770		11,770			
TOTALS	4,622,000				382,710	0	182,210	118,670	81,830	
PARAMETER ALLOCATION PERCENTAGES						-	47.6	31.0	21.4	

CAPITAL COST ALLOCATIONS - NONGRANT -FUNDED DOMESTIC  
TREATMENT SYSTEM

OF LODI DATE May 1977  
FIRST FULL YEAR OF OPERATION 1977/78

A Non-Grant Funded Treatment Plants and Pumping Plants	B Estimated Cost	C Useful Life	D Loading Parameters	E Capital Recovery Factor	F Annual Capital Recovery Cost	G Flow Cost Allocated to Inf./Inf	TREATMENT PARAMETER ALLOCATION			
							H  FLOW Cost	I  BOD Cost	J  SS Cost	K  Cost
Headworks										
Structures	194,000	40	Flow	0.06646	12,890		12,890			
Equipment	150,000	15	Flow, 75, SS, 25	0.10296	15,440		11,530		3,860	
Primary Clarifiers										
Structures	230,000	40	Flow	0.06646	15,290		15,290			
Equipment	190,000	25	SS, 65, BOD, 35	0.07823	14,860			5,200	9,660	
Aeration										
Structures	280,000	40	Flow	0.06646	18,610		18,610			
Equipment	290,000	25	BOD	0.07823	22,690			22,690		
Secondary Clarifiers										
Structures	290,000	40	Flow	0.06646	19,270		19,270			
Equipment	180,000	25	Flow	0.07823	14,080			14,080		
Chlorination										
Structures	70,000	30	Flow	0.07265	5,090		5,090			
Equipment	90,000	12	Flow	0.11928	10,730		10,730			
Sludge Digester										
Structures	270,000	30	SS, 65, BOD, 35	0.07265	19,620			6,865	12,755	
Equipment	220,000	12	SS, 65, BOD, 35	0.11928	26,240			9,185	17,055	
Trunk Lines	128,500	40	Flow	0.06646	8,540		8,540			
TOTALS	2,582,500				203,350	0	102,000	58,020	43,330	
PARAMETER ALLOCATION PERCENTAGES						-	50.2	28.5	21.3	

FORM 3C

CITY OF LODI  
CAPITAL COST ALLOCATIONS - DOMESTIC COLLECTION SYSTEM

DATE May 1977  
FIRST FULL YEAR OF OPERATION 1977/78

Item	Estimated Cost	Useful Life	Loading Parameters	Parameter Allocation	Percentages
Non-Grant Funded Collection System	\$1,121,500	30	Flow	Flow	100%





CITY OF LODI

DATE May 1977

FIRST FULL YEAR OF OPERATION

1977/78

FORM 4A

## DISTRIBUTION OF O&amp;M COSTS - DOMESTIC AND INDUSTRIAL SYSTEMS

Account No.	Budget Item	Distribution Factor		Basis of Distribution
		Domestic	Industrial	
17-401.1	Sewer Administration	88%	12%	Percent distribution proportional to total costs of remaining budget items
17-402.2	Sewer Engineering	88%	12%	
17-403.1	Water Pollution Control Plant	(85%)	(15%)	Weighted average
100	Personnel Services	92%	8%	For industrial system: 2 hr/day operations, 1 hr/day laboratory, $\frac{1}{2}$ hr/day supervisory
200	Utility and Transportation	80%	20%	Percent of annual power usage
300	Supplies, Materials and Services	95%	5%	Estimated industrial needs
500	Equipment and Structures	100%	0	Actual expenses
600	Special Payments	55%	45%	Percent of land utilized
17-406.1	Equipment Maintenance	92%	8%	Percent of equipment utilized

OPERATION AND MAINTENANCE COST DATA<sup>a</sup> - DOMESTIC  
WASTEWATER SYSTEM

CITY OF LODI

DATE  
FIRST FULL YEAR OF OPERATIONMay 1977  
1977/78

Budget Item A	1974-75 B Actual	1975-76 C Actual	1976-77 D Budgeted	1977-78 E Estimated Cost First Full Year of Operation	1981-82 F Fifth Year
Sewer Administration					
Personal Services	10,500	11,891	12,880	13,375	15,710
Utility & Transport.	1,163	1,070	1,260	803	1,060
Supplies, Materials, etc.	1,907	3,276	4,480	6,530	6,800
Sub-Total	13,570	16,237	18,620	20,710	24,570
Special Services					
Sewer Engineering	2,462	2,911	6,980	2,795	3,500
Finance Department	-	-	11,350	12,495	-
Sub-Total	2,462	2,911	18,330	15,290	3,500
Maintenance - Plant					
Personal Services	75,087	91,075	122,675	170,305	212,645
Utility & Transport.	51,612	59,126	71,515	99,135	149,525
Supplies, Materials, etc.	28,669	34,705	45,295	67,315	89,900
Equipment, Land, etc.	2,606	-	820	820	1,200
Special Payments	1,702	2,537	670	7,900	7,900
Sub-Total	160,676	187,443	240,915	345,475	461,170
Maintenance - Sewer					
Personal Services	41,653	47,983	57,245	53,645	67,025
Utility & Transport.	423	789	355	400	450
Supplies & Materials	18,287	21,858	4,100	4,500	4,000
Equipment, Land, etc.	31	134	150	150	150
Sub-Total	60,394	70,764	61,850	58,695	71,625
Equipment Maintenance					
Personal Services	4,751	2,947	8,660	9,930	12,410
Supplies, Materials, etc.	5,176	5,942	4,775	4,575	6,720
Equip. Depreciation	3,707	1,001	4,015	7,105	7,105
Equipment, Land, etc.	-	-	130	-	-
Sub-Total	13,634	9,890	17,580	21,610	26,235
TOTAL O&M COST	250,736	287,245	357,295	461,880	587,100

<sup>a</sup> All cost data apply to the domestic wastewater treatment system (~89% of total system)

OPERATION AND MAINTENANCE COST DATA<sup>a</sup>) - INDUSTRIAL WASTEWATER SYSTEM

CITY OF LODI

DATE

May 1977

FIRST FULL YEAR OF OPERATION

1977/78

Budget Item	A	Budgeted	C	D	E	F
1974-75	Actual	1976-77	Actual	1977-78	Estimated Cost First Full Year of Operation	1981-82
Sewer Administration						Fifth Year
Personal Services	1,431	1,760	1,621	1,825		
Utility & Transport.	159	170	146	125		
Supplies, Materials, etc	260	610	447	800		
Sub-Total	1,850	2,540	2,214	2,850		3,340
Special Services						
Sewer Engineering	336	950	397	380		
Finance Department	-	1,550	-	1,705		
Sub-Total	336	2,500	397	2,085		470
Maintenance Plant						
Personal Services	6,529	10,665	7,920	14,815		18,495
Utility & Transport.	12,903	17,860	14,782	24,785		37,385
Supplies, Materials, etc	1,561	2,385	1,827	3,545		4,730
Special Payments	15,316	5,490	22,832	6,450		6,450
Sub-Total	36,312	36,420	46,881	49,595		67,080
Maintenance - Sewer						
Personal Services	-	895	733	1,625		2,030
Utility & Transport.	-	325	-	770		935
Supplies & Materials	-	550	825	500		550
Domestic Sewer						
Maint. Share	5,252	-	-	-		-
Sub-Total	5,252	1,770	1,558	2,895		3,515
Equipment Maintenance						
Personal Services	413	750	256	865		1,080
Supplies, Materials, etc.	450	415	517	400		580
Equip. Depreciation	322	360	87	615		615
Sub-Total	1,185	1,525	860	1,880		2,275
TOTAL O&M COST	44,935	44,755	52,390	59,295		76,660

a) All cost data apply to the industrial wastewater treatment system (.11% of total system)  
 b) Separate industrial sewer maintenance budget, beginning in 1975.

FORM 5  
UNIT COST DETERMINATION

A Item	B Parameter	C Parameter Allocation	D Total Cost Allocated To Parameter	E Total Quantities	F Unit Costs
<u>Capital</u>					
Grant Funded					
Domestic Treatment	Flow	47.6	\$ 73,300	2,117	\$ 34.62/MG = $V_{gf}$
System (\$4,622,000/ 30 yr) \$154,000	BOD	31.0	47,700	3,723	12.81/1000 lb BOD = $B_{gf}^{gf}$
	SS	21.4	33,000	4,417	7.47/1000 lb SS = $P_{gf}^{gf}$
		<u>100.0</u>			
Non-Grant Funded					
Domestic Treatment	Flow	50.2	43,200	2,117	20.41/MG = $V_{nf}$
System (\$2,532,500/ 30 yr) \$86,000	BOD	28.5	24,500	3,723	6.58/1000 lb BOD = $B_{nf}^{nf}$
	SS	21.3	18,300	4,417	4.14/1000 lb SS = $P_{nf}^{nf}$
		<u>100.0</u>			
Domestic Collection	Flow	100	37,400	2,117	17.67/MG = $V_{cf}$
System (\$1,121,500/ 30 yr) \$37,400					
Industrial Wastewater	Flow	91.4	18,550	307.5	60.33/MG = $V_{if}$
System (\$610,000/ 30 yr) \$20,300	BOD	8.6	1,750	1,856.4	0.94/1000 lb BOD = $B_{if}^{if}$
		<u>100.0</u>			
<u>Operation &amp; Maintenance</u>					
Domestic Wastewater	Flow	34	157,040	1,537.7	102.13/MG = $V_o$
System, \$461,880	BOD	33	152,420	2,257.4	67.52/1000 lb BOD = $B_o^o$
	SS	33	152,420	2,499.1	60.99/1000 lb SS = $S_o^o$
Industrial Wastewater	Flow	91.4	54,195	307.5	176.24/MG = $V_i$
System, \$59,295	BOD	8.6	5,100	1,856.4	2.75/1000 lb BOD = $B_i^i$

Form 6A  
DEBT SERVICE SCHEDULE

CITY OF LODI  
FIRST FULL YEAR OF OPERATION  
DATE May 1977  
1977/78

SERIES "A" (SEWAGE PLANT PORTION)  
BOND DEBT SCHEDULE

FISCAL YEAR	PRINCIPAL OUTSTANDING	INTEREST	PRINCIPAL MATURING	TOTAL DEBT SERVICE
1967	\$3,255,000.	\$ 117,690.	\$ 62,140.	\$ 179,830.
1968	3,192,860.	115,020.	65,100.	130,120.
1969	3,127,760.	112,220.	68,060.	180,280.
1970	3,059,700.	109,290.	71,020.	130,310.
1971	2,988,680.	106,240.	73,980.	180,220.
1972	2,914,700.	103,060.	73,980.	177,040.
1973	2,840,720.	99,880.	76,940.	176,820.
1974	2,763,780.	96,570.	79,900.	176,470.
1975	2,683,880.	93,130.	82,860.	175,990.
1976	2,601,020.	89,570.	85,820.	175,390.
1977	2,515,200.	86,740.	88,770.	175,510.
1978	2,426,430.	83,810.	91,730.	175,540.
1979	2,334,700.	80,780.	94,690.	175,470.
1980	2,240,010.	77,660.	97,650.	175,310.
1981	2,142,360.	74,440.	103,570.	178,010.
1982	2,038,790.	70,910.	106,530.	177,440.
1983	1,932,260.	67,290.	109,490.	176,780.
1984	1,822,770.	63,570.	112,450.	176,020.
1985	1,710,320.	59,750.	118,360.	178,110.
1986	1,591,960.	55,720.	121,320.	177,040.
1987	1,470,640.	51,480.	124,280.	175,760.
1988	1,346,360.	47,130.	130,200.	177,330.
1989	1,216,160.	42,570.	133,160.	175,730.
1990	1,083,000.	37,910.	139,080.	176,990.
1991	943,920.	33,040.	145,000.	178,040.
1992	798,920.	27,970.	147,950.	175,920.
1993	650,970.	22,790.	153,870.	176,660.
1994	497,100.	17,400.	159,790.	177,190.
1995	337,310.	11,810.	165,710.	177,520.
1996	<u>171,600.</u>	<u>6,010.</u>	<u>171,600.</u>	<u>177,610.</u>
				<u>\$3,255,000.</u>

NOTE: Figures rounded up to nearest ten dollars.

REVENUE PROGRAM  
FOR  
CITY OF LODI SEWER UTILITY

INTRODUCTION

In accepting state and federal funds to finance a portion of the expansion of the White Slough Water Pollution Control Facilities (WSWPCF), the City of Lodi agreed to comply with Clean Water Grant Program regulations which, in part, require the implementation of a revenue program. The purpose of the revenue program is to insure compliance with state and federal requirements while providing the City of Lodi with a sound financial plan for the continued operation of wastewater facilities. The basis for this revenue program is the California State Water Resources Control Board publication entitled "Revenue Program Guidelines for Wastewater Agencies" (RPGWA).

Separate industrial and domestic wastewater treatment facilities are owned and operated by the City. Only the domestic facility has been constructed with funds from the Clean Water Grant Program; thus, the raising of revenues for the operation of industrial facilities is not subject to state and federal requirements. However, in the interest of uniform financial planning, this document covers the needs of both facilities. Modifications to the portions of this document applicable

to the industrial facilities may be made freely, but modifications to the domestic facility portions may only be made within the bounds of the Clean Water Grant regulations described in the RPGWA.

This revenue program is intended to be a working document to be used annually to revise sewer service charges as necessary for continued compliance with regulations. To achieve this end, this document is separated into three main sections—the first section is a general description of the Grant guidelines and other considerations pertaining to the structure of this revenue program; the second section is a summary of the proposed 1977-78 Revenue Program; the third section is a detailed description of the development of the 1977-78 sewer service charges which can be used as a guide for the annual revenue program modifications, as required.

## DESCRIPTION OF REVENUE PROGRAM

In general, the Clean Water Grant regulations require that the City of Lodi implement a revenue program which will, through user service charges, connection fees, or other means approved by the state, recover appropriate capital costs, costs of operation and maintenance, and fund reasonable future expansion and improvements as needed. The program presented in this document consists of two portions covering revenue requirements and sources of revenue. To maintain a consistent fiscal policy and to insure a self-sustaining pay-as-you-go wastewater program,



revenue needs and sources for both the industrial and domestic systems are satisfied in a similar manner.

## Revenue Requirements

State and federal guidelines separate revenue requirements into three specific areas as follows:

1. Provide financing for an adequate operation and maintenance program, including the employment of competent operating personnel.
2. Fund interest payments on debts attributable to construction of wastewater facilities.
3. Provide amounts required to be deposited in a Wastewater Capital Reserve Fund (WCRF).

Operation and Maintenance. Past and current City budgets satisfy the regulations on operation and maintenance by providing funding for these activities in budget Account Nos. 17-401.1, 17-401.2, and 17-403.1. In addition, to provide a financially sound and self-supporting program, all remaining sewer operation budget accounts, excluding No. 17-030 (which will be discussed later), are also included for financing under this revenue program heading. Adoption of and budgeting for "Appendix I - Staffing Recommendation" of the WSWPCF O&M Manual is the final item necessary to fully comply with revenue program requirements under this heading.

Interest Payments. Payment of interest on debts associated with the construction of the WSWPCF is also provided for in the current City budget under Account No. 17-030.1. Thus, no charges are needed in City budgeting procedures to fully comply with the guidelines pertaining to the category.

Wastewater Capital Reserve Fund. This category is not specifically covered in current City budgeting. Although some items of the current budget may be placed under this heading (i.e.; bond debt principal payment, qualifying supplemental requests, etc.), amounts made available for the Wastewater Capital Reserve Fund each year should be based on a comprehensive financial policy premised on sound engineering and economic policies. State guidelines specify a minimum annual contribution to the Wastewater Capital Reserve Fund of  $1/30$  of the construction cost of the treatment facilities, unless a smaller contribution can be justified. This amounts to a 30-year straight line depreciation for determining the annual contribution to the Wastewater Capital Reserve Fund and this depreciation figure is used in the revenue program.

In addition, the guidelines recommend that higher amounts should be collected if predicted replacement expansion or improvement needs so indicate. The minimum contribution to the Wastewater Capital Reserve Fund will provide funds only for the continued upkeep and replacement of the domestic wastewater treatment facilities, but not for the industrial treatment facilities or the wastewater collection systems. In the interest of sound fiscal planning, two additional reserve funds for the industrial facilities and collection systems are provided in this

program. The basis of annual contributions to the two funds will be 1/30 of the value of these facilities currently on City books. The total value is \$8,936,000, divided as follows: \$7,204,500 - domestic treatment facilities; \$610,000 - industrial treatment facilities; and \$1,121,500 - domestic collection system.

Separate reserve fund accounts are recommended to avoid any potential conflicts with stringent state guidelines on how reserve funds may be used. Specific disbursements that may be made from the domestic treatment facility Wastewater Capital Reserve Fund are as follows:

1. Cost of replacement or preservation of the functional value of all capital facilities.
2. Cost of expansion and improvement of treatment works except pipelines smaller than 12 inches in diameter and appurtenances thereto.
3. City's share of any grant funded treatment works.
4. Bond principal payments for bond issues to the extent that the proceeds of the bond issues were used to pay the City (not industry) share of construction except for pipelines smaller than 12 inches.
5. Payments, including interest accrued thereon, to the federal treasury.
6. Amounts pending use as approved by the EPA Regional Administrator (see Section 35.928-2(C) of EPA Regulations).

Disbursements from the fund are self-explanatory, except for Items 5 and 6 which pertain to federal industrial cost recovery. Under EPA regulations, the City of Lodi must recover from the industrial user of grant-funded facilities an amount equal to the portion of the federal grant allocable to industrial users. Of the

amount recovered, 50 percent, together with any interest earned thereon, must be returned to the federal treasury on an annual basis (Item No. 5); 40 percent must be invested in federal obligations or in securities guaranteed by the federal government which amount may be used for expansion or reconstruction upon written permission from the EPA Regional Administrator (Item No. 2); and 10 percent may be used for wastewater purposes as the City sees fit.

#### Sources of Revenue

Revenue must be collected through a system of charges to assure that each recipient of wastewater treatment and collection services will pay a share of the total operation, maintenance and capital costs reasonably proportional to the benefit received. Users can be divided into two general classes - those users currently connected to the system and those users that will connect to the system prior to utilization of maximum treatment capacity.

Funds to be collected fall under the headings of operation and maintenance (O&M) costs and capital costs. Only existing users benefit from O&M costs and, therefore, should pay those costs. Capital costs, however, provide not only capacity in the treatment plant for current users but also excess capacity for the benefit of future users. Therefore, to be fair, capital costs need to be divided proportionately between current and future users. This can be done by using a combination of service charges and connection fees.

User Charges. The most equitable method of distributing costs among the various users would be by using actually measured contributions from each user. However, it would be impossible to affect such a measuring program for any except the largest industrial dischargers. Fortunately, the great majority of small dischargers have waste characteristics so similar that actual monitoring of waste volume and strength is really not necessary. As a result, a system of charges can be developed to handle the two cases quite adequately (i.e., the great number of relatively small, similar dischargers and the small number of large, dissimilar dischargers).

1. Industrial discharge user fees will be determined through actual monitored contributions. The unit cost for treating each major constituent in the waste (i.e., flow, biochemical oxygen demand, suspended solids) will be calculated and multiplied by the actual quantity of each constituent discharged. The summation of costs for all constituents will be the actual charge made to industrial users.
2. Most all domestic and commercial dischargers have a waste discharge of moderate strength, having less than 300 mg/l of biochemical oxygen demand (BOD) and suspended solids (SS). The only significant variation among these dischargers is volume. Therefore, a system of charges can be utilized that is based only upon flow.

A sewage service unit will be the basis for charging domestic and commercial dischargers, one unit being equal to the flow from a two bedroom house (280 gal. per day) and having a strength less than 300 mg/l of both SS and BOD. On this basis, all small dischargers that meet

the sewage service unit criteria are assigned a number of units. The cost of treating one sewage service unit is calculated by dividing total cost of treatment for residential and commercial discharges by the total number of units. When this unit cost is multiplied by the number of units associated with each category of discharger, the resulting figure is the user charge.

Connection Fees. The most equitable means of collecting proportionate capital costs from future users is to charge a connection fee at the time a new service is required. As in the case of current users, future industrial discharge connection fees will be based on actual contributions and domestic-commercial dischargers will pay a fee based upon sewage service units.

#### Miscellaneous Requirements

The revenue program must be reviewed, and if necessary, revised annually. Results of the annual review shall be reported to the State Water Resources Control Board. The City is subject to audit by the State Controller and must have an accounting system and supporting records in sufficient detail to demonstrate that collections and disbursements were made in compliance with the intents and purposes of the guidelines.

## SUMMARY OF 1977/78 REVENUE PROGRAM

Presented in this section is the proposed 1977/78 revenue program based upon rationale described in the first section.

### Domestic Wastewater Revenue Program

Table 1 is a summary of the revenues and disbursements for the domestic wastewater system revenue program. State regulations provide that once the capital reserve account reaches 10 percent of the value of facilities used to calculate the annual contributions (i.e., \$720,000), collections may be reduced to those specifically needed for federal industrial cost recovery and bond principal. However, at that time the City should review forecasts of capital needs very carefully to determine if a reduction in charges is feasible and appropriate.

Industrial Sewage Service Rates. Table 2 is a list of the required 1977/78 annual rates for each major industrial discharger tributary to the domestic sewer system. The rates are based upon actual waste contributions.

Residential Sewage Service Rates. Table 3 is a list of monthly rates and connection fees for residential users based upon the number of bedrooms per house.

Table 1. DOMESTIC REVENUE PROGRAM SUMMARY 1977/78

<b>REVENUES</b>			
Commercial and Domestic Service Charges			
14,769 Sewage Service Units @ \$3.40/month			\$600,207
Industrial Service Charges			121,514
Connection Fees			
464 Sewage Service Units @ \$290			<u>133,021</u>
<b>TOTAL REVENUES</b>			<b>\$854,742</b>
<b>DISBURSEMENTS</b>			
Operation and Maintenance			
Accounts:			
17-401.1	\$ 20,810		
17-402.2	15,290		
17-403.1	345,475		
17-404.1	58,695		
17-406.1	<u>21,610</u>		\$ 461,880
Interest (Account 17-030.1)			115,462
Treatment System WCRF			
Bond Principal (Account 17-030.1)			
Series A	\$ 74,210		
Series C	50,000		
Federal Repayment	5,297		
Capital Reserve Account (WCRA) <sup>a</sup>	<u>110,493</u>		240,000
Collection System Reserve Account (CSRA)			<u>37,400</u>
<b>TOTAL DISBURSEMENTS</b>			<b>\$854,742</b>

<sup>a</sup>\$4,200 Invested in Federal Obligations



Table 2. 1977/78 SEWAGE SERVICE RATES FOR INDUSTRIAL DISCHARGERS  
TO DOMESTIC SYSTEM

DISCHARGER	ANNUAL FEE
General Mills	\$117,768
Lustre Cal	293
Holtz Rubber	855
Pure Sausage	1,098
R&J Packing	1,006
Rague Water	366
Blewitt Creamery	128

Table 3. RESIDENTIAL SEWAGE SERVICE RATES

Number of Bedrooms	1976/77 Monthly Rate	1977/78 Monthly Rate	New Home <sup>(1)</sup> Connection Fee
1	\$1.95	\$2.54	\$215
2	3.25	3.39	290
3	3.90	4.24	360
4	4.55	5.09	430
5	5.20	5.93	500
6	5.85	6.78	575

(1) This fee is in addition to current city charges for making lateral connections if necessary.

Commercial Sewage Service Rates. Commercial sewage service rates are calculated on the basis of \$40.64 per year for each sewage service unit. Table 4 is a list of units assigned to each category of commercial user. The annual rate for each user must be determined individually based on the nature of each specific user's business. Fees shall be calculated based on the nearest one-tenth of a unit, except that the minimum fee for any user shall be one sewage service unit. Commercial connection fees are based upon a rate of \$290 per sewage service unit.

Pumper Truck Rate. Pumper trucks unloading at the new dumping station at WSWPCF will be charged at a rate of \$20 per 1000 gal. of truck capacity.

#### Industrial Wastewater Revenue Program

Table 5 is a summary of the revenues and disbursements for the industrial wastewater system revenue program. Table 6 is the 1977/78 annual rates for each discharger to the industrial system.

Table 4. COMMERCIAL CATEGORIES &amp; SEWAGE SERVICE UNIT SCHEDULE

No.	Category Name	Unit of Measure <sup>a</sup>	Total No. Est'ments <sup>b</sup>	Total No. Units
1	Meeting place, religious	Ea 200 seats	36	88
2	Meeting place, public	Ea 100 seats	13	80
3	Hotel, motel	Ea 5 beds	28	143
4	Veterinary clinic	Ea 10 kennels	4	16
5	Post office	Ea 25 emp.	2	3
6	Funeral parlor	Ea 2 emp.	2	10
7	Service station pumps	Ea 3 pumps	33	81
8	Car wash bays	Ea bay	5	12
9	School, 8th grade & below	Ea 25 students	14	216
10	High school	Ea 20 students	2	200
11	Eating place, seating only	Ea 10 seats	26	281
12	Eating place, seating & take-out	Ea 7 seats	14	200
13	Eating place, take-out only	Ea 5 emp.	14	25
14	Lunch truck business	Ea 5 emp.	1	3
15	Laundry, coin op., reg. mach.	Ea 2 machines	10	98
16	Laundry, coin op., big mach.	Ea machine	5	8
17	Comm. laundry & dry cleaning	Ea 2 emp.	9	18
18	Doctor's office	Ea 10 emp.	40	42
19	Dentist's office	Ea 5 emp.	29	32
20	Chiropractor's office	Ea 10 emp.	6	6
21	X-ray Laboratory	Ea 10 emp.	2	3
22	Office, store, warehouse	Ea 10 emp.	552	729
23	Bar	Ea 25 seats	24	61
24	Barber, beauty shop	Ea 4 chairs	61	75
25	Hospital, convalescent home	Ea 2 beds	9	339
26	Rest & retirement home	Ea 3 beds	8	73
TOTAL				2,842

<sup>a</sup>One (1) sewage service unit per unit of measure<sup>b</sup>April 1977

Table 5. INDUSTRIAL WASTEWATER SYSTEM REVENUE PROGRAM  
SUMMARY - 1977/78

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REVENUES

Industrial Service Charges		\$ 95,603
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DISBURSEMENTS

Operation and Maintenance

Accounts: 17-401.1	\$ 2,840	
17-402.2	2,085	
17-403.1	49,595	
17-404.2	2,895	
17-406.1	<u>1,880</u>	\$ 59,295

Interest (Account 17-030.1)		16,008
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Industrial Reserve Fund (ISRA)

Series A Bond Principal (Account 17-030.1)	\$ 17,520	
Reserve Account	<u>2,780</u>	<u>20,300</u>

TOTAL DISBURSEMENTS		\$ 95,603
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Table 6. SEWAGE SERVICE RATES FOR INDUSTRIAL DISCHARGERS  
TO INDUSTRIAL SYSTEM

DISCHARGER	ANNUAL FEE
Pacific Coast Producers	\$65,881
Valley Tow Rite	3,245
Lodi Nut Co.	5,369
Lodi Iron Works	6,193
San Joaquin Sulphur	5,317
Hughes Chemical	4,869
End-Kian Publishing Co.	4,724

## PREPARATION OF 1977/78 REVENUE PROGRAM

This section presents a step-by-step description of how the 1977/78 revenue program was developed along with comments on special considerations for subsequent annual revisions. The person responsible for making the annual revisions should first review and become familiar with the "Revenue Program Guidelines for Wastewater Agencies" published by the California State Water Resources Control Board. These guidelines should be used as a reference when preparing annual revisions to the basic revenue program.

Instructions in the test refer to computation tables in the Appendix of this report. Normally, only the forms in the Appendix will be submitted to the State Board for annual review; however, if radical changes from previous years are made, a short written explanation should also be submitted.

### Series 1 Forms - Industrial User Listing

Form 1A is used to identify industrial users connected to the domestic system that contribute substantial hydraulic or pollutant loads and to indicate periods of usage, if not continuous. All users that have their service charge calculated on a unit cost basis should be included in this list. Flow and strength data must be updated annually from self-monitoring reports or periodic sampling by treatment plant personnel.

Form 1B is used to identify all users of the industrial wastewater system. Again, flow and strength data must be updated annually and service charges calculated from the revised unit costs.

#### Series 2 Forms - Nonindustrial (Residential and Commercial) User Listing

Form 2A is used to identify all residential and commercial users who have their annual service charges calculated on the basis of sewage service units. It is also used to summarize the hydraulic and pollutant loading on the domestic treatment system by all groups of users including special classifications, such as "future capacity" and federal installations. The totals at the bottom represent the capacity of the treatment facilities and will not change until the facilities are expanded. The intermediate subtotals are the actual hydraulic and pollutant loadings recorded for the previous fiscal year. This form must be adjusted annually by deducting industrial flows from the total plant flow and distributing the remaining flows between commercial and residential users in proportion to sewage service units in Forms 2B and 2C.

Form 2B is used to determine the total number of residential sewage service units ( $U_p$ ) connected to the system, by category, and must be updated annually. As actual data on loadings from the various categories of residential users becomes available, the number of units per dwelling ( $U$ ) may be modified during the annual review.



Form 2C is used to determine the total number of commercial sewage service units ( $U_c$ ) connected to the system, by category. This form must also be updated each year, incorporating any new data on loading that becomes available.

### Series 3 Forms - Capital Cost Allocations

The Series 3 forms are used to compute the allocation of capital costs to flow, BOD, and SS for the various components of the sewerage system. Revisions to these forms will only be necessary if major capital alterations are made to the sewerage works that modify their value. Minor equipment additions and depreciation should be handled in the O&M budget. The significant items derived from these forms are the percentage allocations for the various wastewater flow and strength parameters.

Forms 3A and 3B are used for allocating capital costs for the recent expansion project and the original 1966 construction, respectively. The total capital cost from these two forms (\$7,204,500) divided by 30 years represents the basis for the annual contribution to the Wastewater Capital Recovery Fund (WCRF).

Form 3C is used for allocating the capital cost associated with the domestic collection system. The total value of these facilities (\$1,121,500) divided by 30 years is the basis for contributions to the Collection System Reserve Fund (CSRF).

Form 3D is used for allocating the capital cost associated with the industrial wastewater system. The total value of these facilities (\$610,000) divided by 30 years is the basis for contributions to the Industrial System Reserve Fund (ISRF).

#### Series 4 Forms - O&M Cost Allocations

The Series 4 forms are used to summarize and allocate operation and maintenance costs for the domestic and industrial wastewater facilities.

Form 4A is used to distribute the total sewer operations budget accounts between the domestic and industrial systems. This form should be revised annually based upon actual operating experience from the previous year. Alternately, division of accounts in the annual City budget between the domestic and industrial systems may be desirable to eliminate the need for this form.

Forms 4B and 4C are used to allocate the annual O&M budgets for the domestic and industrial wastewater systems, respectfully. Specific entries are determined by multiplying the percent distribution figures (Form 4A) by the total budget accounts.

#### Form 5 - Unit Cost Determination

Form 5 is used to compute unit costs for providing sewerage service by wastewater flow and strength parameters based upon the data developed in the previous forms.

This form must be updated annually to derive user service charges based on the most recent cost and loading data.

It is necessary to consider both capital and annual operation and maintenance costs when computing the required unit costs. Capital costs and allocation parameters (Columns A, B, C, and D) will normally not be modified annually. The quantities used to compute unit costs for the domestic system (Column E) are the design capacities for the various wastewater parameters (i.e., Flow, BOD, SS). On the other hand, because they vary so widely from year to year, the quantities for the industrial system are the actually measured quantities for the previous year. These, of course, will be modified annually.

Operation and maintenance cost allocation parameters must be reviewed and updated each year. Allocation parameters for domestic O&M (Column C) are established by the SWRCB and can only be modified if approved by that agency in writing; therefore, annual modification will normally not be made. Costs and quantities are different each year (Columns D and E), so unit costs will be modified on an annual basis.

Allocation parameters for the industrial system O&M are the same as for capital cost. These should be modified annually to reflect actual operating experience. Since these facilities did not receive grant funding during this project, SWRCB approval of changes in allocation parameters is not required.